

INDIAN TRANSPLANT NEWSLETTER

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MULTI ORGAN HARVESTING AID NETWORK

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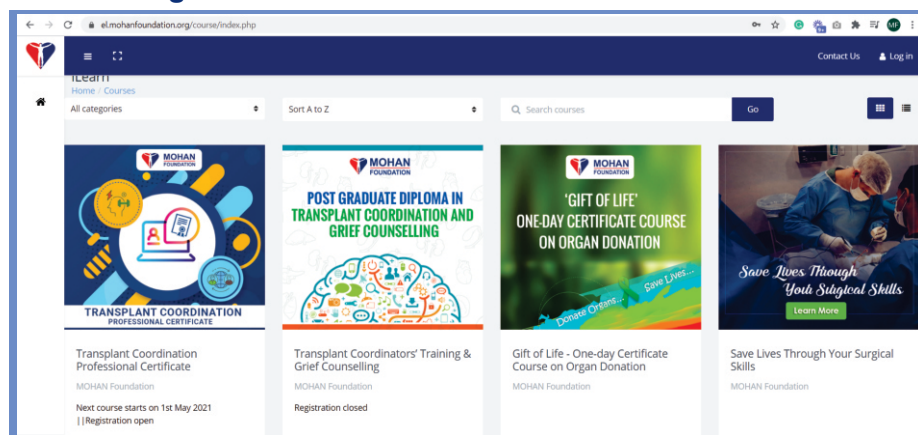
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Editorial Desk

MOHAN Foundation goes online and virtual during the pandemic to help the cause of organ donation



MOHAN Foundation's online courses

The last one year has changed the future of education, training, creating awareness and messaging, and fundraising as we know it. The very rapid adaptation of virtual platforms, the use of technology and the ease to sit in your own space sans travel and learn at your own pace has truly arrived and is appealing. This will be a paradigm shift in many fields including education. Teachers will face competition and will need to find innovative and interactive online teaching methods and the students will need to be attentive, alert and the evaluation could become more demanding.

The challenge of the virtual world for public awareness and training of transplant coordinators in the field of organ donation during this pandemic was even more daunting with the rise of COVID-19 cases. Transplant programmes came to a halt and the focus was only to treat the pandemic. MOHAN Foundation adapted to the virtual world very quickly thanks to their technology team and senior management's support. MOHAN Foundation conducted one major activity almost every week.

Online training programmes for transplant coordinators (el.mohanfoundation.org)

MOHAN Foundation started structured training programmes for transplant coordinators to impart the necessary knowledge and skills for the job in 2009. Training was conducted face-to-face with durations varying from one week to one month. Working healthcare professionals found it challenging to attend because of time constraints. In addition, participants were from different educational backgrounds and had varied skill sets and learning requirements. To meet this challenge, MOHAN Foundation embarked on an online training programme and formally rolled out a one-year E-learning course, Post Graduate Diploma in Transplant Coordination and Grief Counselling, in 2017. The COVID-19 pandemic resulted in expanding the use of online training with the introduction of a short-term course, Transplant Coordination Professional Certificate, with more in the pipeline. A total of 2622 candidates have been trained through both face-to-face and online training from December 2009 – February 2021. The total number of students who received online training from December 2019 to February 2021 is 184. The geographic spread of participants covered the entire country and included participants from Jammu, Kashmir, Bihar and Mizoram. International participants were from Qatar, Vietnam, Malaysia, Singapore, Nigeria, Spain, Nepal and Pakistan. MOHAN Foundation's E-learning courses, 'Tele-education for transplant coordinators – the experience over three years,' were featured in

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Lung transplant recipient dies after receiving lungs infected with COVID-19

A woman who underwent a double lung transplant at the University Hospital, Ann Arbor, Michigan died 61 days after the transplant due to COVID-19 that was transmitted through the donated lungs. This is the only confirmed case among nearly 40,000 transplants in 2020 in the US and was reported in the American Journal of Transplantation. The donor had died after sustaining a severe brain injury in a car accident; she had shown no prior symptoms of COVID-19, and there was no recent history of travel or exposure to someone with COVID-19. The nose and throat samples collected from both the donor and recipient had tested negative for SARS-CoV-2.

Three days after the lung transplant, however, the recipient developed a fever and her vital signs were compromised. Imaging showed signs of lung infection. As her condition worsened, samples from her new lungs were tested for SARS-CoV-2 and they came back positive. Based on the possibility that the infection could have come from the donor, doctors tested a sample of fluid that they had kept, washed from deep within the donor lungs. It was positive for SARS-CoV-2. Four days after the transplant, the surgeon who handled the donor lungs and performed the surgery tested positive, too. Genetic screening revealed that the recipient and the surgeon had been infected by the donor. The recipient deteriorated rapidly, developed multisystem organ failure and died.

This incident has shown that SARS-CoV-2 can be transmitted through infected lungs and it signals the need for testing samples from the donor's lower respiratory tract, as well as from the nose and throat. On the other hand, obtaining and testing such samples from donors can be difficult to carry out in a timely fashion and there is also the risk of introducing infection into the donated lungs.

World's first successful face and double hand transplant performed in USA

Joe DiMeo, 22, received a rare face and double hand transplant on 12th August 2020 at NYU Langone Health, USA. This is the world's first such successful transplant. Simultaneous face and double hand transplants are extremely rare and have only been tried twice before. The first attempt was in 2009 on a patient in Paris who died about a month later from complications. Two years later, Boston doctors tried it again on a woman who was mauled by a chimpanzee, but ultimately had to remove the transplanted hands days later.

In 2018, DiMeo was severely burned in a car accident and spent months in a medically induced coma. He underwent 20 reconstructive surgeries and multiple skin grafts to treat his extensive (80% total body surface area) third-degree burns. But it became clear that conventional surgeries could not help DiMeo regain full vision or use of his hands. His medical team then began preparing for this rare transplant in early 2019. They knew that finding a matching donor was going to be difficult and the COVID-19 pandemic made the task even more arduous. Finally, in August 2020, a donor was identified in Delaware through the Gift of Life Donor Program, the organ procurement organization covering that region. Richard D. Hasz Jr., Vice president of clinical services, Gift of Life Donor Program said, "This transplant was possible because a selfless family said yes to this unique donation. The donor's mother shares that she is proud and comforted that her son was able to help another young man while also saving and healing others through organ and tissue donation. She says her son will always be her angel."

Dr. Eduardo Rodriguez led the medical team of more than 140 healthcare professionals who operated on DiMeo. They transplanted both hands to the mid-forearm, including the radius and ulna, three nerves, six blood vessels and 21 tendons. They also transplanted a full face, including the forehead, eyebrows, nose, eyelids, lips, both ears and underlying facial bones in a 23-hour procedure. DiMeo is on a novel immunosuppression strategy to prevent transplant rejection, as well as intensive rehabilitation that includes physical, occupational and speech therapy. DiMeo, who lives with his parents, can now dress and feed himself. At a press conference in February 2021, he spoke about being able to play with his dog, play pool, and that he was eager to get back to work.

Editorial...continued from page 1

the segment 'Showcasing Tele-Health Success Stories from India' at the 16th International Conference of Telemedicine Society of India 'Telemedicon 2020' that was held virtually in December 2020.

Public awareness programmes and Organ Donation Ambassadors

Creating awareness on organ donation has always been a key activity of MOHAN Foundation. More than 200 awareness programmes were conducted using the online platform in 2020. In addition, MOHAN Foundation's one day online Gift of Life course for the general public to understand the nuances of organ donation has been very popular. The participants can learn at their own pace and it has been highly appreciated by them. A step up from this is a unique programme that MOHAN Foundation launched for interested volunteers to become Organ Donation Ambassadors. It is a virtual customised training module with the objective to enable volunteers to become proficient enough to be able to undertake awareness initiatives on organ donation amongst different audiences. Students from schools, colleges of allied health sciences, engineering, law, and medicine as well as life members of the foundation and others have benefitted from the training.

Synchrony Dialogues with MOHAN Foundation

The lockdown also motivated us to initiate a series of online webinars titled, 'Synchrony Dialogues with MOHAN Foundation' on a range of issues catering to the general public, the youth, transplant patients and their families, transplant coordinators and other stakeholders in the area of organ donation. Some of the webinars organized were on how to take care of your kidneys, how to take care of your liver, organ and body donation, hand and limb transplant etc. Others were focused on personal growth and developing interpersonal skills.

Transplant Recipients of India and Organ failure Patients – a Movement to Provide Hope (TRIOMPH)

A significant step forward towards patient support and advocacy was the launch of TRIOMPH (Transplant Recipients of India and Organ failure Patients – a Movement to Provide Hope) – a Patient Support Group initiative by MOHAN Foundation in September 2020. TRIOMPH is committed to improving the quality of life of organ failure patients, transplant recipients and their families. TRIOMPH's mission is to improve the quality of life of organ failure patients and transplant recipients through patient empowerment, awareness, education, support and advocacy.

'Mission to reach Millions' – Music concerts for organ donation

For centuries, music has been an effective medium to reach out and touch the hearts of people. It is also a beautiful way to capture their attention and thereby convey a social message. During the pandemic, when we were homebound, we started a new initiative called the "Mission to reach Millions", where celebrated artistes and musicians from different regions of India performed Carnatic, Bollywood, Qawwali, Sufi and folk music regaled our listeners. During the concerts, artistes endorsed organ donation and we were able to reach lakhs of people across the globe through Facebook, YouTube and Twitter with the message of organ donation. We will continue leveraging on the strengths of social media to reach public at large so that we are able to give the "Gift of Life" to as many as possible.

This issue offers you a glimpse into these novel initiatives.

India's second-youngest organ donor saves a patient with end-stage kidney disease at PGIMER, Chandigarh

The Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh bore witness to a magnanimous and courageous family who donated the kidneys of their baby who was just over a month old. Baby Ababat Kaur Sandhu, 39 days old, became the country's second youngest organ donor on 25th November 2020. The youngest donor at PGIMER was a 70-hour-old boy, whose kidneys were donated in February 2020.

Baby Ababat Kaur Sandhu was born on 28th October 2020 and was diagnosed with congenital brain anomalies. Her parents realised that her chances of survival were bleak and brought her to PGIMER on 25th November, but the baby did not survive. The parents grieved the loss of their newborn but amidst their grief, they wanted to change the ending to someone's story by donating her kidneys and seeing their daughter living through someone else in this world. The donated kidneys gave a new lease of life to a 15-year-old boy from Patiala who was suffering from end-stage kidney disease. Both kidneys were transplanted into the boy because of the small size of infant kidneys. "Retrieving organs from children for transplant is rare. It is even more uncommon for young children with congenital anomalies," said Prof Ashish Sharma, Head, Department of Renal Transplant Surgery, PGIMER.

First deceased donor kidney transplant performed at Goa Medical College under SOTTO

A 21-year-old young man from North India who was working at Calangute, Goa met with an accident with head injuries and was admitted to Goa Medical College (GMC) on 3rd December 2020. The head injuries resulted in brain death. As his family agreed to organ donation, the organ retrieval process was set in motion on 7th December. His heart, lungs, liver, and kidneys gave new life to five people. GMC dean, S M Bandekar applauded the donor's family members for their bountiful act even in their state of grief.

The state utilised its infrastructure at GMC to conduct deceased donor kidney transplants for the first time, where two men (aged between 40 and 45) within the state became kidney recipients successfully. The other retrieved organs were received by patients outside Goa and for the non-stop transportation of the organs, a green corridor was created between GMC and Goa airport. The donor's heart was flown to a patient in Mumbai, lungs were given to a patient in Chennai, and liver was received by a person in Nagpur.

The kidney transplant surgeries were performed by two teams, one was led by Dr. Madhumohan Prabhudesai, Consultant Urologist & HOD, Urology, Healthway Hospital; Professor & HOD, Urology, Goa Medical College, and the other was headed by Dr. P Oza, a consultant urologist. Dr. J P Tiwari, Head of the Nephrology Department, and his team were in charge of the post-transplant care of the two recipients.

Kidney transplantation racket rears its ugly head again

It is a familiar theme that never seems to go away – the trade in organs for transplantation. This time the kidney transplantation racket uncovered in Noida, Uttar Pradesh involved Bangladeshi citizens as well as Indians. Allegedly the Bangladeshi man was 'donating' his kidney in exchange for financial benefits. An FIR was lodged against five persons under various sections of the Indian Penal Code for forgery of documents and cheating as well as the Transplantation of Human Organs and Tissues Act, 1994 and the Foreigners Act, 1984.

Telangana sees spurt in lung transplants

In 2020, Telangana performed 20 lung transplants compared to nine transplants in 2019. These lung transplants were performed for a select group of patients whose lungs were severely damaged due to COVID-19. Dr. G. Swarnalatha, In-charge, Jeevandan Cadaver Transplantation Programme, Government of Telangana said that hospitals had strengthened their donor optimisation protocols and were better able to retrieve organs including lungs. Dr. Sandeep Attawar, Chair and Director of Thoracic Organ Transplants and Assist Devices, KIMS Heart & Lung Transplant Institute, Hyderabad concurred. Dr. Attawar and his team performed nearly 10 lung transplants in 2020. There were 75 deceased organ donors with the retrieval of 257 organs in 2020 in the state. In January and February 2021, there was a total of 25 deceased donors with 81 organs being retrieved (www.jeevandan.gov.in).

Age no bar – 92-year-old man becomes deceased donor

Mr. Amrit Lal Budhraj, a 92-year-old man from Delhi became one of the oldest deceased donors in the country when his family consented to donating his organs. He suffered a haemorrhagic stroke on 5th January 2021. He was taken to Max Super Specialty Hospital, Saket, Delhi for treatment. An emergency surgery was undertaken, but it was futile. Mr. Budhraj was certified brain dead on 7th January 2021.

On receiving consent from his family for organ donation, Mr. Budhraj's kidneys, liver and corneas were retrieved. The doctors said that the biological age of the organs was much lower than his actual age. The recipient was a 56-year-old woman who was suffering from both end-stage liver and kidney disease.

Suicide victim's organs donated in Gujarat

Nandani Shah, 17, was a bright student from Halol town in Vadodara, Gujarat. But in December 2020 she committed suicide by consuming poison. Her anguished family even in the face of this incomprehensible tragedy decided to donate all her organs and save others' lives. Dr. Pranjal Modi, Convenor, State Organ and Tissue Transplantation Organisation, Gujarat said that there was some apprehension about damage to the liver by the organophosphate poisoning, but none of the organs were affected. Nandani's heart, lungs, liver, kidneys and corneas were retrieved. This was the first instance of heart and lung donation in Vadodara. The heart was taken to AIIMS, Delhi and the lungs to a hospital in Mumbai for transplantation.

Deceased organ donation and transplantation during COVID-19 pandemic – The Pune experience

Mrs. Arati Gokhale
Central Coordinator
Zonal Transplant Coordination Centre
(ZTCC), Pune



It was one of the days in March 2020, everyone was happy because we had started the new year with more than 10 organ donations. We were hoping that 2020 would bring new development by reaching donation in three digits. I remember I visited Nashik, Kolhapur and Satara to find out the need and appointment of new coordinator to start work under ZTCC Pune, but on 23rd March the first lockdown was announced for 21 days. I was hoping that after 21 days everything would be fine and the process would be restored, but the lockdown continued. Wearing masks, social distancing, and sanitisation became the new normal.

All hospitals were working but there were no organ donations. April went silently with zero donation. By then online meetings started for setting up guidelines for allocation and distribution at the National Organ and Tissue Transplant Organisation and Regional Organ and Tissue Transplant Organisation (NOTTO-ROTO) level. Finally, in May we all received COVID-19 guidelines by NOTTO followed by Department of Health Services. The guidelines were really challenging to implement for hospitals as well as ZTCC.

The most difficult and challenging task was to update with new COVID-19 guidelines and making a strategy to implement it practically in organ allocation. How is transplant possible when you are unable to call recipients from outside the state and your city? There were restrictions on travelling. Public and private transportation had collapsed. So the first challenge was to find recipients at the local level not from intercity or intrastate even if he or she was higher up on the city waiting list (CWL). If we look at it from that patient's point of view his/her number is higher up on the CWL but he/she can't get a chance/call. It is disappointing for them, but on the other hand the local patients got the chance that they were really hoping for, to save their life and avail this unexpected golden moment in their life.

Whenever there is a donor at any centre and when you're doing multiorgan and tissue donation you have to do many organ-wise investigations to ensure safety and quality of organs. Due to COVID-19 so much paperwork and investigations were added to the process, for example, all COVID-19 investigations, COVID consent form, COVID screening for health care workers, including ambulance driver, nursing staff, physicians, and surgeons. All of this increased the time of the organ donation process and that was a different challenge altogether.

We wanted to do multiorgan donations, we did not want to lose any organ because of delay, we had to implement the guidelines, we had to find out

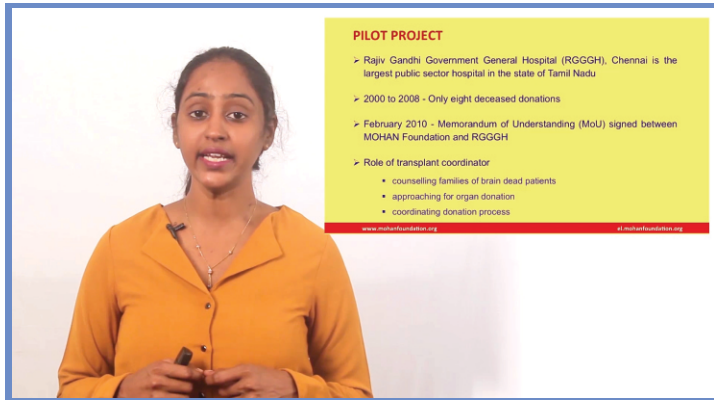
the local recipient, we had to do all investigations, and the documentation, in a limited time. All this process required so much time and that we did not have. Hospital coordinators were finding it difficult to cope and do all the extra work. So many things were going on simultaneously. It was additional stress. Everything was challenging but everyone was ready to play their role to save someone's life. And I feel that was the key point to achieve 41 deceased donations in Pune in 2020. In fact, organ donations started in Pune when COVID-19 was at a peak.

As I said earlier donations stopped in March and there were no donations in April, in fact, no brain-stem death (BSD) identification or certification was done. I was thinking...how is it possible that in more than 40 centres not a single BSD identification has been done? It was possible for hospitals to identify and certify donors, but consent may not have been possible because of family refusal for COVID testing or medically unfit for donation. But no BSD identification and certification at all was not acceptable to me, especially when two months back we did 10 donations within a month and the number of BSD identifications was more than that. So I took an interest to find out the reasons behind this. There was no reason as such but COVID impact was there and some of the hospitals became COVID centres and it was obvious the all the focus got shifted to COVID. From our side a little bit of a push was required to resume the same.

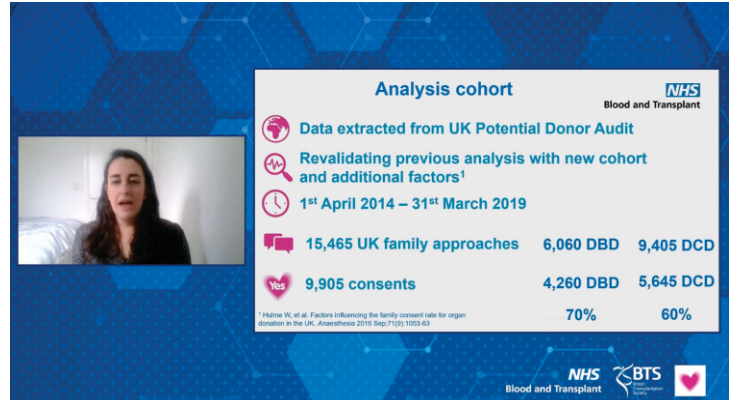
In May 2020, we received guidelines from NOTTO and DHS and hospitals got an idea as to how they could go on with organ donation in the pandemic. Simultaneously online awareness programmes, webinars, interactive sessions with transplant coordinators were going on through online platforms. All the coordinators from Pune zone were charged up for donation and in May 2020 the first deceased organ donation and the first liver transplant was done in the COVID-19 pandemic. From then on organ donations started in full swing and we put in all the energy we had. At the end of 2020, 41 deceased organ donations had been done by ZTCC Pune and that was the highest number of donations in India. We shared seven organs including heart, lungs, kidney, liver all over India through ROTO/NOTTO in 2020.

I feel proud that all my transplant coordinators from ZTCC Pune took up the challenges at every level in the process and delivered of their best for the noble cause of organ donation in this difficult situation. And most importantly I would like to salute all the deceased donor family members for giving consent to save many lives.

Takeaways from the British Transplantation Society and NHS Blood and Transplant Joint Congress 2021



Ms. Sujatha Suriyamoorthi presenting pre-recorded oral abstract



Ms. Rebecca Curtis speaking on 'Factors influencing family consent for organ donation in the UK'



Panel discussion on Journey of the body and soul how different faiths have interacted with organ donation



The UK Opt-Out Experience – Hosted by Dr. Dale Gardiner, National Clinical Lead for Organ Donation, UK. Panelists (from top) – Anthony Clarkson, John Forsythe, Claire Williment, Phil Walton

The British Transplantation Society (BTS) and NHS Blood and Transplant (NHSBT), UK conducted their second BTS NHSBT Joint Congress on 24th and 25th February 2021. MOHAN Foundation was invited to attend the congress and this was facilitated under the auspices of the Memorandum of Understanding (MoU) signed between NHSBT, UK and MOHAN Foundation to learn from each other and work together to improve the organ donation rate in both the countries. Close to 900 attendees across the world attended the congress. The congress addressed various aspects of transplant programme which included donation and transplantation activities during the COVID-19 pandemic and the opt-out experience in the UK.

Factors influencing the family consent rate for organ donation in the UK

The UK's consent rate for organ donation was on the rise. The consent rates for donation after brain death (DBD) and donation after circulatory death (DCD) were 64% and 44% respectively in April 2011, which had increased to 72% and 61% respectively in April 2019. However, the UK remained one among the countries which had high family refusal rates.

A study was conducted to analyse the factors influencing family consent for organ donation in both DBD and DCD. The study was conducted for a period of five years from 1st April 2014 to 31st March 2019. More families were approached for organ donation after circulatory death (9,405 families) than after brain death (6,060 families).

The analysis was done based on the following two factors –

- Patient factors
- Process factors

Patient factors influencing consent rate in DBD and DCD

Factors

Ethnicity

Socioeconomic category

Patients' prior donation discussion

Sex

Religion and Belief

Cause of death

Consent rate

Less likely in patients from Black, Asian, Minority Ethnic (BAME) Community

Less likely among the patients from economically deprived groups

More likely if the patient had either discussed with the family or had registered in organ donor register

More likely if the patients were male

Over 80% less likely in Muslim patients Age Paediatric – More likely in DBD and less likely in DCD

Adult – More likely in DCD and less likely in DBD

In DCD, consent rate was more likely if the cause of death was neurological than non-neurological

Process factors influencing consent rate in DBD and DCD

Factors	Consent rate
Family witnessing brain-stem death (BSD) tests	Less likely in DBD if the BSD tests were witnessed by the family (to be studied further)
Specialist nurse for organ donation (SNOD) presence during 'bad news' conversation	More likely if the SNOD was present
Family members present	Less likely if more family members were present during conversation
Prior mention of donation	100% more likely if the family mentioned about organ donation before even formally approached
Nature of approach	Most likely if the SNOD was present
Time from critical admission to approach	More likely if approached sooner in DBD More likely if approached later in DCD
Relationship of the consenter	More likely if the sibling was approached
Timing of approach	More likely if the family was approached before the first set of BSD tests (to be studied further)

Journey of the body and soul – How different faiths have interacted with organ donation

Religious beliefs play a significant role in the attitude towards deceased organ donation. Hence it becomes important to understand the religious views while engaging with people from multicultural societies.

Studying the different attitudinal segments of public

To understand the barriers in delivering organ donation message it is important to study and understand the distinct attitudinal segments of the general public.

- Interested but uninformed – A segment that feels organ donation is important, but does not know enough about the process and needs clarification from its faith leaders.
- Interested but cautious – Segment of people who are interested to participate but worried about their religious faiths and rules.
- Cynics – This segment feels that organ donation is strictly prohibited and a serious breach of their religious faith.

Involving faith leaders

Empowering and enabling the process of conversation about organ donation amongst various faith communities will help in understanding the barriers. Facilitating dialogues among faith leaders and involving them in public engagement will give access for religious counsel and help in decision making.

Ensuring public trust

It is inevitable that public trust in the system improves public participation in the donation programme. In situations like COVID-19, the Government should be mindful and should not do anything that jeopardises the minority communities. Medical professionals involving in public engagement and collaborating with local community organisations will certainly help improving trust among the public.

The UK opt-out experience

Wales became the first country in the UK to adopt the opt-out system for deceased organ donation in December 2015. As a ripple effect, the law change was implemented in other parts of the UK as well – Jersey (April 2018) and England (March 2020). The opt-out system in England is known as Max and Keira's law, named after Max, a boy who received a heart transplant and Keira, a nine-year old girl, his donor. Since then public awareness campaigns were launched to help the people understand the choices that they have. The campaigns were well received by the public as they could relate to real life stories, Max and Keira. Structured training programmes were facilitated for professionals involved including SNODs for effective implementation of the law.

Other parts of the UK – Scotland, Northern Ireland, Guernsey and Isle of Man have taken initiatives to introduce the opt-out system and are working towards the law change.

Donation actions framework in the UK – an updated professional, ethical and legal framework

As the country moved to the opt-out system, the need for an updated framework has been felt by the professional bodies. The draft framework aims to summarise the professional, legal and ethical guidance into one document for donation actions to facilitate deceased donation in England, Wales and Ireland. The framework also intends to address the changes in professional practice in recent times and advances in medical technology.

Donor actions are activities or interventions carried out on a potential donor either before death or after death for the purpose of exploring donation eligibility / facilitating deceased donation. In general, after death, donation actions before consent as well as after consent are equally acceptable. However, the donation actions after death are less ethically complex compared to donation actions before death. Based on these two factors - whether the patient is deceased and/or whether there is consent for organ donation, the framework demarcates the donation actions as follows

- Before death and before consent
- Before death and after consent
- After death and before consent
- After death and after consent

The professional bodies are expecting the draft framework to become practical guidelines after reviews and stakeholders' endorsement in 2021.

The congress also had a session on 'Fostering awareness about organ donation and registration – Lessons from Australia'

Australia follows the opt-in system and people are strongly encouraged to register in the Australian Organ Donor Registry (AODR). Studies have shown that 90-93% families will consent for organ donation if a donation decision has been registered in the AODR and this drops to 44-52% when the donation decision is unknown. This is largely because the next-of-kin has to take the decision on his/her own and this adds to the anguish at a time of grief.

In spite of active campaigning, the registration rate still remains low at 34%. Various efforts were made to understand the low organ donation registration rate and strategies were designed with the aim to increase the number of people who register on the AODR. Initiatives were designed based on three principles –

Respect - Society at a large has positive support for organ donation but often coupled with some level of concern and care. These beliefs need to be respected irrespective of education, social, cultural, economic and religious diversities.

Interaction - It is important to invite the public for respectful dialogue with professionals to discuss their beliefs and concerns.

Immediacy - Giving people an immediate opportunity to register for organ donation immediately after the dialogue. Once they take a decision, this gives them a choice to act upon it.

MOHAN Foundation presented an abstract at the Congress

MOHAN Foundation's abstract on 'Deceased organ donation programme - Impact of trained transplant coordinators' services in a public hospital in India' (Authors – Sujatha Suriyamoorthi, Dr. Sumana Navin, Dr. Sunil Shroff) was accepted for oral presentation at the Congress. The pre-recorded abstract presentation (7 minutes) was streamed on the conference site. The abstract showcased that trained transplant coordinators working in collaboration with intensive care personnel were instrumental in facilitating a greater number of deceased donations in the public hospital. The counselling services by trained transplant coordinators resulted in a consent rate of 68% (February 2010 – January 2020).

Sujatha Suriyamoorthi
Manager-Information Systems
MOHAN Foundation



COVID-19 Vaccine for Transplant Recipients: an update



Dr. Vivek Kute

Professor – Nephrology and Transplantation
Institute of Kidney Diseases and Research Centre and
Dr. H L Trivedi Institute of Transplantation Sciences (IKDRC-ITS), Ahmedabad, India
Secretary, Indian Society of Organ Transplantation (ISOT)

1. What are the COVID-19 vaccine guidelines for Transplant Recipients?

Based on other vaccine guidelines for solid organ transplant recipients, Transplant societies suggest that transplant recipients and their household members should get vaccinated with any COVID-19 vaccine that is authorized or approved by their health regulator's agencies. Transplant recipients scheduled for transplantation, should be given vaccine two weeks prior to surgery or one to six months post-transplant. Even after vaccination, COVID-19 appropriate behaviors like wearing face mask, hand hygiene, cough etiquette and social distancing should be continued by all recipients.

2. What kind of vaccines are available or under development to prevent COVID-19?

There are currently several vaccine candidates under development. The types of vaccines are as follows:

Name	Manufacturer	Mechanism	Course	Number of Patients Tested	Efficacy	Comment on Transplant/Immunocompromised Patients
COVAXIN	BHARAT BIOTECH	Whole virion inactivated SARS-CoV-2 Vaccine (BBV152)	2 doses IM injection 28 days apart	750 in phase 2 25,800 in phase 3	Awaited	—
COVISHIELD	SERUM INSTITUTE OF INDIA	Modified chimpanzee adenovirus vector (ChAdOx1)	0.5 ml IM on days 1,29	1600 for phase 2/3 trial	Not published. Reported to be 70.4%	
BNT162b2	Pfizer Inc. and BioNTech	mRNA vaccine	0.3 ml 3 weeks apart	36000 in phase 3	94.6% at or after 7 days of second dose	Immunocompromised individuals may have diminished immune response to vaccine
Mrna 1273	Moderna	Nucleoside modified mRNA vaccine – spike protein	0.5 ML IM 2 DOSES 1 month apart	15,185 over 3 phases	94.1%	Immunocompromised individuals may have diminished immune response to vaccine
Sputnik V	Gamaleya Institute	Vector vaccine-two replication-incompetent adenovirus vectors that express a full-length spike glycoprotein.	2 doses – IM 28 days apart	39 cases	91.4%	

3. When will these vaccines become available to transplant recipients?

Both Pfizer and Moderna vaccines have filed for Emergency Use Authorization (EUA). Currently the CDC Advisory Committee on Immunization Practices (ACIP) are considering the following groups for early vaccination in a phased distribution:

- Healthcare personnel
- Residents of long-term care facilities
- People at high risk for severe COVID-19 illness due to underlying medical conditions
- People 65 years and older

In India, vaccines have been made available on priority basis to frontline healthcare workers. Next round of vaccination may be made available to population over 50 years of age.

4. What is known about the safety of these vaccines?

The safety profile of the mRNA SARS-CoV-2 vaccines administered to over 70,000 participants has not revealed any significant concerns at a median of 2 months follow up. The mRNA SARSCoV-2 vaccines, similar to other common vaccines, are noted to cause fevers, muscle aches, and headaches; most are mild to moderate in severity, but some may be severe enough to briefly limit activities and typically resolve within 1-2 days. The safety of mRNA vaccines is still under investigation in solid organ transplant recipients. Expert opinion is



that based on their mechanism of action, they are unlikely to trigger rejection episodes, but more data will be needed in transplant recipients.

5. How effective are these vaccines in transplant recipients?

The Pfizer and Moderna mRNA vaccines have data in immunocompetent people showing 94.1-95% efficacy in preventing infection with COVID-19. When breakthrough infection occurs, disease is generally mild, showing the vaccines are also effective in preventing severe disease. It currently appears that antibody titers persist for at least 4 months.

The effectiveness of COVID-19 vaccines will need to be further studied in the solid organ transplant recipient. Solid organ transplant recipients may have generally lower antibody responses than those without transplants. Likewise, waning titers to other routine vaccines are well documented after transplantation. Lastly, patients vaccinated pre-transplant, may have reduced protection post-transplant, particularly if therapies that reduce B-cell function (e.g. rituximab) are utilized.

6. When should a transplant recipient or candidate receive these vaccines?

Based on previous vaccination guidelines for solid organ transplant recipients, it is recommended that all transplant candidates and their household members receive vaccination when it becomes available. In general, vaccines are recommended more than 2 weeks prior to transplantation, or starting at 1-6 months after transplantation.

7. Can a transplant recipient still receive the vaccine even if they have had COVID-19?

The current guidance is that everyone receives the vaccine, irrespective of past COVID-19 infection. There are case reports of immunosuppressed patients developing COVID-19 reinfection, suggesting lack of appropriate immune response or waning immunity after the first infection.

8. Are there other things that transplant recipients need to consider about the vaccine?

While data are currently lacking specific to the vaccine in transplant recipients, it is reasonable to anticipate that vaccination will offer benefit. Transplant recipients appear to have clinically worse outcomes from SARS-CoV-2 infection compared to non-transplant recipients due to comorbidities or immunosuppression. Thus, the benefits of vaccination outweigh any theoretical risks especially in countries where SARS-CoV-2 transmission continues at a high level.

9. Is there anyone who should NOT get the vaccine?

People with a history of allergic reactions to vaccines or other medicines should talk to their transplant physician about getting the vaccine. The CDC states that this is a precaution, not a contraindication to getting the vaccine.

So far, vaccines have only been recommended for individuals more than 18 years of age by the Ministry of Health and Family Welfare (MoHFW).

10. Can I get COVID-19 from the vaccine?

No. The vaccine does not contain live virus.

11. Do I need to continue to take extra precautions once I am vaccinated?

Yes. There is not enough information on the protective immunity from the COVID vaccine in transplant recipients. We recommend that you maintain precautions including frequent hand washing, wearing a mask and physical distancing.

12. Can I be vaccinated against other infections?

Until more data are available, other vaccines should not be administered 2 weeks before or after the COVID-19 vaccine.

13. Can I get the vaccine if I currently have COVID-19?

No. The vaccine should only be administered after recovery. You will need to be cleared for the vaccine after you recover from COVID-19 by your transplant physician.

14. Is the vaccine safe if I am pregnant?

COVID-19 vaccines have not been recommended for pregnant and lactating women until more research is completed.

15. Should I continue to take my immunosuppressive medications?

Yes. However, if you develop any signs of illness, such as fever or respiratory symptoms, contact your medical team for guidance on whether to continue these medications.

16. Have the various transplant societies recommended the vaccine to transplant recipients?

Vaccination of transplant recipients has so far been advocated by several societies/ organizations:

- American Society of Transplantation
- London Health Sciences Centre
- British Transplantation Society
- NKF – National Kidney Federation
- MoHFW guidelines (INDIA) recommend vaccine for immunocompromised patients.

17. Can I take vaccine if I have comorbidities?

Yes. Patients with diabetes, hypertension, COPD, kidney diseases, liver diseases can be given COVID vaccine.

18. Is interchangeability of vaccines permitted?

No. Patients who have received first dose of Covishield vaccine must take second dose of Covishield vaccine only, and vice versa.

Please see the details of Government of India COVID-19 vaccine operational guidelines updated as on 28 December 2020.

Disclaimer: COVID-19 pandemic is evolving in a dynamic manner, therefore, this COVID-19 vaccine guideline is a live and dynamic document and will be updated as per the evolving situation.

FORM – IV

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I, Sunil Shroff, hereby declare that the particulars given above are true to the best of my knowledge and belief.

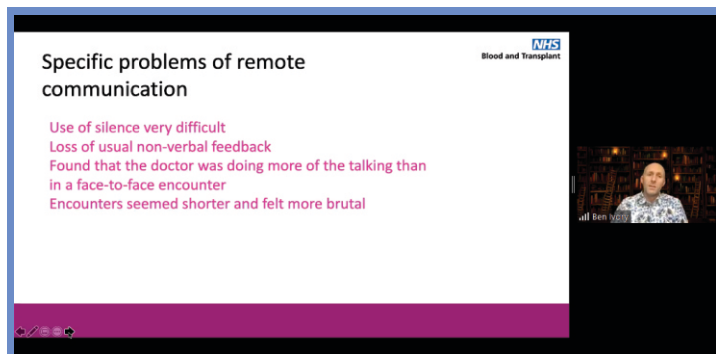
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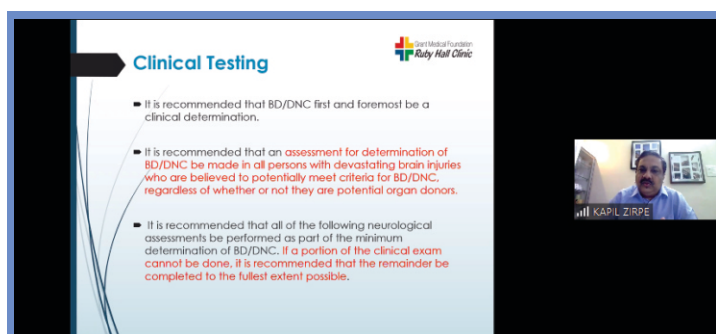
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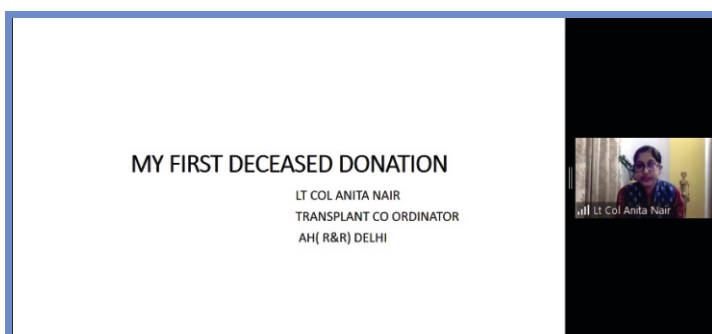
Dr. Ben Ivory of NHSBT speaking on communication from behind the mask



Dr. Lori West speaks about her life as a pioneer in organ transplantation



Dr. Kapil Zirpe introduced the implications of brain death project for India



Lt Col Anita Nair spoke of her first organ donation case

The 2020 edition of the Annual Conference of Transplant Coordinators organised by the Network & Alliance of Transplant Coordinators (NATCO) and MOHAN Foundation was an international conference and also the Pre-Conference of the 8th National Bioethics Conference of Forum for Medical Ethics Society. It was held on 21st and 22nd November 2020 in a virtual format and consisted of key lectures on the World Brain Death Project and its application in India, Impact of COVID-19 pandemic on organ donation and transplantation, and Women in Transplants.

Dr. Kandamaran Krishnamurthy from Barbados gave an introduction to the Whole Brain Death Project (WBDP). In 2020, the WBDP developed consensus criteria on diagnosing brain death/death by neurological criteria (BD/DNC) with the goal to harmonise practices across the world. The WBDP document recommends that BD/DNC be defined as “the complete and permanent loss of brain function as defined by an unresponsive coma with loss of capacity for consciousness, brainstem reflexes, and the ability to breathe independently.” Dr. Kapil Zirpe spoke about the application of WBDP in India. The issues in the country ranged from variable clinical practice and poor concept of potential donor to a weak legal system and understanding of the law. He emphasised that BD/DNC first and foremost is a clinical determination. Further, the WBDP recommends that an assessment for determination of BD/DNC be made in all persons with devastating brain injuries who are believed to potentially meet criteria for BD/DNC regardless of whether or not they are potential organ donors.

Transplant coordinators spoke of their experiences related to organ allocation, donations during the COVID-19 pandemic, their first donation and various ways of supporting their patients to undergo transplants. Dr. Ben Ivory and Ms. Jill Featherstone's session on 'Communication from behind the mask' covered the strategies the National Health Service Blood and Transplant, UK adopted to talk about organ donation in ICUs and in wards during the COVID-19 pandemic. Dr. Manisha Sahay, Professor and Head, Department of Nephrology, Osmania Medical College & Osmania General Hospital, Hyderabad outlined the protocol for transplantation in pandemic times in India. She stressed the necessity to check for access to drugs before transplant. Dr. Sandeep Attawar's talk on 'Indications for Lung Transplants' was an eye-opener with respect to patients needing lung transplantation post COVID-19 infection. Dr. Susan Gunderson highlighted how USA has been managing transplantation during the COVID-19 pandemic. A comparison of the COVID-19 donation protocols followed in the United States and India was a learning experience for the delegates. Dr. Nithya Krishnan, UK gave a talk on pregnancy post kidney transplant.

The 'Women in Transplantation' section featured Dr. Nancy Ascher, USA, Dr. Lori West, Canada, Dr. Vasanthi Ramesh and Mrs. Lalitha Raghuram from India. They spoke about not shying away from the challenges in the field of organ donation and transplantation and striving to make a difference. The conference was supported by Tata Trusts, SBI Foundation and the Zonal Transplant Coordination Centre, Pune.

Angdata Smarak – India's First Organ Donor Memorial Inaugurated in Jaipur



The Angdata Smarak - India's First Organ Donor Memorial

'Angdata Smarak,' India's first Organ Donor Memorial was inaugurated in Jaipur, Rajasthan by the Honourable Chief Minister of Rajasthan Mr. Ashok Gehlot on 27th November 2020 (National Organ Donation Day) through the efforts of MFJCF-Navjeevan. Angdata Smarak is an epitome of love and compassion towards mankind and its design is inspired from the famous sculpture of Jaipur, the Jantar Mantar.

Synchrony Dialogues – 'A Boon to Humanity – Organ Donation'



Dr. Sunil Shroff speaking about the importance of organ donation

On 1st November 2020 MOHAN Foundation organised a webinar titled, 'A Boon to Humanity-Organ Donation' in association with Akhil Bhartiya Marwadi Mahila Sammelan (ABMMS), Maharashtra. The webinar was moderated by Dr. Rajkumari Jain, Head of Eye & Organ Donation Unit, Akhil Bhartiya Marwadi Mahila Sammelan, Parola, Maharashtra and Ms. Jaya Jairam, Project Manager, MOHAN Foundation, Mumbai. The speakers for the webinar were Dr. Sunil Shroff, Managing Trustee, MOHAN Foundation, Ms. Sharda Lokhatia, National President-ABMMS, Maharashtra, Ms. Rekha Lokhatia, National Secretary-ABMMS, Maharashtra, Ms. Saroj Prasari, Provincial President-ABMMS, Maharashtra and Ms. Sandhya Agarwal, National Head of Eye, Blood & Organ Donation Unit, ABMMS, Maharashtra. During the session, Ms. Sharda Lokhatia inaugurated MOHAN Foundation's Hindi website which was specially constructed for the Hindi speaking belt of India. Then, Dr. Shroff addressed the audience about the different aspects of organ donation and transplantation and elaborated on the activities conducted by MOHAN Foundation across nine states in India.

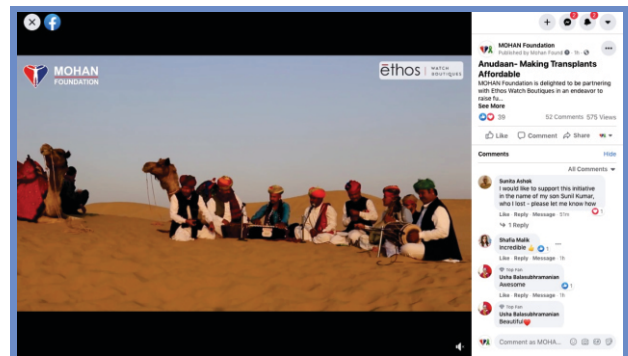
Synchrony Dialogues – 'Celebrating 50 years of Kidney Transplantation in India'



Panelists – (Clockwise from top left) Dr. Chakko Korula Jacob, Dr. Georgi Abraham, Dr. A. Mohan Rao, Dr. Sunil Shroff

On 2nd February 2021, MOHAN Foundation organised a webinar titled 'Celebrating 50 years of Kidney Transplantation in India' to highlight the success of 50 years of kidney transplantation in India. Dr. A. Mohan Rao at Christian Medical College (CMC), Vellore, performed the country's first successful living-donor renal transplant on 2nd February 1971. The webinar was moderated by Dr. Sunil Shroff, Managing Trustee, MOHAN Foundation and Dr. Georgi Abraham, Prof. of Medicine, Pondicherry Institute of Medical Sciences, Consultant Nephrologist, MMM Hospital, Trustee, MOHAN Foundation. Dr. A. Mohan Rao, Associate Professor, Sr. Consultant Transplant Surgeon, Renal Unit – The Queen Elizabeth Hospital, Australia and Dr. Chakko Korula Jacob, Consultant Nephrologist, Bangalore Baptist Hospital were the distinguished speakers of the webinar. The session commemorated the first major milestone achieved by India in the field of kidney transplantation and touched upon some key topics like kidney transplant success stories, the advancement of technology in kidney transplant since 1971, and the challenges and complications faced during initial transplants in India.

A Musical Evening of Rajasthani Folk with Bhungar Khan Manganiyar – In Aid of 'Anudaan - Making Transplants Affordable'



Live performance by Bhungar Khan Manganiyar and group in aid of 'Anudaan'

On 27th February 2021, MOHAN Foundation in association with Ethos Watch Boutiques organised an online fundraising concert in aid of 'Anudaan – Making Transplants Affordable'. This Rajasthani folk music show by Bhungar Khan Manganiyar and group was performed on the undulating sand dunes of Barmer, Rajasthan to raise funds to support underprivileged patients to enable them to undergo life-saving transplants.

MOHAN Foundation launches one-month online 'Transplant Coordination Professional Certificate' course

	Blood group	HLA	Blood group
Kidney	+	+	+
Liver	+	+	+
Heart	+	+	+
Lung	+	+	+

Dr. Suresh Sankar lecturing on HLA and Solid Organ Transplantation

Role of the Authorisation Committee

- To ensure that there is no commercial transaction between the donor and the recipient and that no payment has been made to the donor or promised to be made to the donor or any other person.
- To prepare an explanation of the link between the donor and the recipient which led to the offer being made.
- To examine the reasons why the donor wishes to donate.
- To examine the documentary evidence of the link, e.g. proof that they have been together, etc.
- To examine old photographs showing the donor and the recipient together.
- To evaluate that there is no inducement or test involved.

Ms. Vrinda Pusalkar, Manager-Transplant Coordinator, Jehangir Hospital, Pune speaking about the role of the authorisation committee

Aims

- Regulation of removal, storage and transplantation of human organs for therapeutic purposes.
- Prevention of commercial dealings in human organs.

Recognises Brain-stem death and allows organ donation from brain-dead donors

Ms. Sujatha Suriyamoorthi explaining the aims of THO Act, 1994

Other Documents

- Blood Group, Serology reports, HLA reports
- Residence proof
- Photo Identity- minimum two
- Birth certificate/School leaving certificate
- Police verification (in case of other than related donor, Out of state cases etc.)
- Income details for three years (Essential in case of other than related donor)

TCPC participant, Dr. Stuti Verma, AIIMS, Delhi clarifying her doubts on living unrelated donation

Transplant Coordination Professional Certificate
(One-month E-learning Course)

Join this short-term course that offers you the "Best of Both Worlds"
Flexible learning through E-modules during the week and weekend webinars for real-time interactions

Join Now

What you will learn

- Legal and Ethical Aspects of Organ Donation and Transplantation
- Living Organ Donation and Transplantation
- Deceased Organ and Tissue Donation and Transplantation
- Grief Counselling
- Transplant Coordination
- Public Awareness Programmes on Organ Donation

Course format

- Duration: 4 weeks
- Total hours: 40 hours
- Structure: E-modules and webinars
- Online Certification: On completion of the final examination

Who can join

- Doctors / Nurses / Allied Health Science graduates with work experience
- Masters in Social Work / Psychology / Sociology / Social Sciences / Public Health / Hospital Administration / Graduates in any subject with at least 6 months' experience in hospital setup

4 WEEKS 40 HOURS
E-modules and Webinars
Supported by **TATA TRUSTS**

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<https://el.mohanfoundation.org>

Transplant Coordination Professional Certificate course poster

Health Facility Planning
Measuring demand & capacity while planning for healthcare facilities:

- Ageing population
- Growing demand on health services
- Chronic disease
- Mental health
- Population health
- Impact of climate change
- Seasonal and economic changes
- Community expectations

Dr. Suryakumari talking about the health facility planning

Goals of Counselling

- Short - Term Goals.**
 - Heal the past emotional deprivations.
 - Catharsis.
- Intermediate Goals.**
 - Handle the transition.
 - Manage the current problems.
 - Make decisions.
- Long - Term Goals.**

Mr. K. Veerapandian explaining 'Goals of Counselling'

Adapting to the new learning and training environment created by the COVID-19 pandemic, MOHAN Foundation took its popular one-week face-to-face transplant coordinators' training programme online. It was launched in its new 'avatar', the 'Transplant Coordination Professional Certificate' course, on 2nd November 2020. This short-term one-month E-learning course is designed for candidates with hospital experience who want to pursue transplant coordination. The E-learning modules offer participants flexibility in learning. They can access the course at a time and pace that is convenient to them during the week. In addition, they get to experience weekend webinars with lectures by guest speakers on key topics, review of study material, interactive sessions, and counselling role plays. It is learning that offers the "Best of Both Worlds." The final examination is conducted on the e-learning platform and those who pass the examination can download their certificates online. A total of 44 participants completed the first course in November 2020. The participants were not only from India, but also Nigeria, Singapore and Malaysia. The second course was held in February 2021.

MOHAN Foundation's third batch of the one-year 'Post Graduate Diploma in Transplant Coordination and Grief Counselling' completed the course in December 2020. There were 43 successful participants not only from India, but also Pakistan, Nepal and Spain.

The training is supported by the Tata Trusts.

MOHAN Foundation's Transplant Coordinator Receives Appreciation Award from TRANSTAN



On 27th November 2020 the Transplant Authority of Tamil Nadu (TRANSTAN) organised a programme at National Health Mission, DMS Annexe, Chennai to commemorate the 11th Indian Organ Donation Day. Dr. J. Radhakrishnan, IAS, Principal Secretary, Department of Health and Family Welfare, Government of Tamil Nadu, who was the chief guest for the occasion felicitated the families of deceased organ donors for their noble act of organ donation. On this special day, the transplant centres and transplant coordinators were also honoured for their outstanding performance during which one of MOHAN Foundation's transplant coordinators, Ms. Vidhya Rashmi (who is deputed to the Rajiv Gandhi Government General Hospital (RGGGH), Chennai) received the appreciation award from TRANSTAN for her excellent performance in the deceased donation programme in Tamil Nadu.

Ms. Vidhya Rashmi, MOHAN Foundation's Transplant coordinator deputed to the Rajiv Gandhi Government General Hospital (RGGGH), Chennai with the award

MOHAN Foundation wins Grant Thornton (Bharat) SABERA Award 2020



MOHAN Foundation was awarded the Grant Thornton (Bharat) SABERA (Social and Business Enterprise Responsible Awards) in the "Most Innovative Development Sector Project" in the under 5 crore category. The same was announced during the online award event held on 10th December 2020. The award acknowledged the innovative ways in which MOHAN Foundation has used technology in facilitating the noble cause of organ donation – such as its brain death



declaration and maintenance apps for medical professionals, the web-based registries for some state governments, its 24 x 7 National helpline and donor registry, and the online training courses for medical and paramedical professionals.



Krishna Ram Sharma makes it to the Asia Book of Records as longest surviving kidney transplant recipient in Asia

Krishna Ram Sharma (born on July 6, 1953) of Rajasthan, India, set a record for the longest survival case of kidney transplant. He had a chronic renal failure and had a kidney transplant on June 10, 1977 at Christian Medical College Hospital, Vellore, Tamil Nadu. He faced no major issue after the transplant and has even participated in 100-metre race and long jump in 1983 organised by All India Kidney Transplant Meet. He is fit from the last 43 years, 5 months and 9 days, as confirmed on November 21, 2020.